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## THE PRINCIPAL BOARDER.

I AM not sure that my Aunt Somers thought she was serving her country, but I think she believed herself somehow entitled to public gratitude, for condescending to remove to Barnsbury, and take in boarders, when my uncle the doctor died, after buying a West-end practice, and left her a disconsolate widow, with two maiden sisters and his orphan niece. Each of the sisters—their names were Miss Charlotte and Sophia Singleton—had a few hundreds vested in the Five Per Cents, on the interest of which they lived, and exerted themselves to get off. The niece, little Bessy Somers, should have had a few hundreds too; but the late doctor being her guardian, had thought proper to vest them in his West-end practice, with solemn vows and promises made to himself, that they should be gathered out of it, and laid up against her wedding-day. Death had given him no time for the fulfilment of those good intentions, but he laid on his wife a stringent obligation, in return for his making her his sole heiress, that she would take care of and provide for Bessy. My respected aunt always declared that the legacy consisted of nothing but old furniture and cracked china. She kept fast hold of it, however, and made great efforts to roll the annexed responsibility off her own shoulders, and on those of the doctor's relations; but having tried his brothers, his sisters, his uncles, his aunts, his first and second cousins, without success (by the way, she and the whole tribe were sworn enemies ever after), Mrs Somers took the advice of her friends, removed to Barnsbury with her encumbered estate, leased a house in Mountford Place, and took under her boarding wings a select constituency, who were to form one family, and enjoy the comforts of a happy home.

They consisted, first, of myself—one likes to begin with the person highest in one's esteem. I was an apprentice then with a certain city optician; and my father and mother, honest people, thought my morals and manners would be safe in my aunt's house. Secondly, there were the Misses Singleton; thirdly, the widow of a coast-guard lieutenant, who called herself Mrs Captain Browne; and fourthly, Mr Simington, an East India merchant, who was believed to have made his fortune long ago, and to keep a business in Leadenhall Street, by way of occupying his spare time. The boarders being select, were not numerous; moreover, they had the advantage of being, every soul, more or less related to the mistress of the establishment; for Mrs Captain Browne was a third-cousin of her father; and the East India merchant counted kindred somewhere at a

remote distance on the maternal side. We all sat at the same table, and could have talked through the partitions of our rooms, yet my aunt's boarding-house was a complete hierarchy. The scale ascended inversely to my summary. I was its lowest note; appointed to the seat in the draught, lodged in the attic-room, expected never to be helped twice to anything, nor poke the fire unless specially requested. The Misses Singleton occupied the position immediately above me. The second-floor back was sacred to them. They might be helped the second time to anything that was plenty, and had a limited licence to use the poker in cold weather. Still higher stood Mrs Captain Browne. She rejoiced in the second-floor front, made her demands boldly at dinner, and turned up the coals without fear. But the archbishop, the cardinal, the pope of our establishment, in short, the principal boarder, was Mr Simington, the East India merchant.

He was a stout, rosy man, about forty-five, good-humoured, and well disposed to make himself comfortable and keep friends with everybody. Mr Simington was a bachelor too; his two married sisters in Pimlico, his three brothers in the city, his nieces in Worcestershire, and his nephews in Kent all agreed—it was said to be the only point of agreement among them—that Mr Simington never would marry. Mrs Somers and her maiden sisters declared themselves of the same opinion, whenever occasion served. He was too fond of his comforts, too confirmed in his bachelor ways, ever to change them. And why should Mr Simington think of marrying at all? It was not a pretty face that would beguile him—he was a great deal too sensible for that; it was not fortune nor family—he had money enough, and did not care for high connections; it was not to have a comfortable home—where could he be better cared for, and more studied, than in Mountford Place? Such was the published confession of the fair trio. To it Mrs Captain Browne gave her adhesion now and then; but, like many manifestoes, its true reading was to be made out by contraries, for, to my certain knowledge, the four ladies had, every one, private and deeply laid designs on Mr Simington. He was one of those gentlemen given to pay attentions—I think most men between forty and fifty get into that line. As a principal boarder, with four ladies studying him, the East India merchant could scarcely do otherwise; so he paid attentions to each of the four according to her standing in the house, giving the largest share to my respected aunt, the next to Mrs Captain Browne, and the third to the maiden sisters, whose claims he balanced with such even-handed justice, that both were equally sure of his heart. It is candour and not

spite which compels me to declare there was not a pretty face in the quartett. My youthful judgment may have been biased, for I was the nephew-of-all-work, blamed for everything that went wrong out of doors, lectured on my own misdoings as well as those of my acquaintances; and I maintain that no man knows what snubbing is, who has not had an aunt with two maiden sisters and a coast-guard lieutenant's widow to hold command over him in his youth.

There was one comfort, however—I had an inferior in the shape of Bessy, the orphan niece. Bessy was sixteen; but it would have been high treason against my aunt's crown and dignity, and brought down lightnings and thunders from the three next in command, to have called Bessy anything but a child. In fact, she did double duty in our establishment, filling at once the offices of drudge and little girl. Bessy had to help in all her domestic difficulties our one female servant, Sally Stubbs, whom my aunt called her cook or her housemaid as exigencies required. She had also to wear short frocks, take bread and milk for breakfast, and go to bed punctually at eight. A small slender figure, a face that might have served as a model to the workers in wax, but for the light of its laughing blue eyes, which no doll could borrow, and the soft fair hair that would go into wavy ringlets however clipped and combed—all helped the illusion, which her seniors did their best to promulgate, by always speaking of Bessy as that poor child. My aunt was accustomed to lament over the years which must pass before she would grow up, and the expense her education would be when Bessy was old enough to be sent to a finishing-school. The good lady was to do wonders for her protégée, when the proper period of womanhood arrived; but she considered it decidedly sinful to put notions of dress and vanity in children's heads. Bessy was never allowed to appear in the drawing-room except in the capacity of duster; and as she got nothing but old dresses shortened, the orphan niece went out only with messages to the green-grocer on week-days, and to evening church on Sundays with the maid.

My Aunt Somers always allowed that I was a young man of well-regulated mind—and she was right. Whatsoever orthodoxy was established in the territory, house, or workshop where I chanced to sojourn, became my confession of faith for the time. Whatsoever greatness was set up, to it was I prepared to do homage. I would have worshipped Nebuchadnezzar's golden image, independently of the fiery furnace; and there was one ready for all recusants in Mountford Place. On that prudent principle, I did my best to think Bessy a child, though it sometimes struck me that going to bed in broad daylight on a summer evening, when there was a little dancing-party in the drawing-room, could not be to her taste; and I could not help fancying how well she would look in a long muslin frock and ringlets among the young ladies. The same judicious inclination to what was ordered and expected, made me bow down before Mr Simington, and consider him the greatest man within my knowing. Was he not my aunt's principal boarder? Did he not occupy the best bedroom? Were not his tastes consulted in spite of market-prices? Did not the entire household wait upon his nod, as the Olympian gods were said to do on Jupiter's? More than all, was he not the aim and object of the four ladies who employed, commanded, and snubbed me? Oh, the warming of slippers, the peeling of walnuts, the mulling of wine, that went on for that old gentleman in cold winter evenings! Oh, the falling on his neck, when he came home from his summer rambles, as though the East India merchant had been three prodigals rolled into one! What well-governed youth would not have prostrated himself in spirit before such manifest superiority; so I bowed down to Mr Simington, and served him. Yet, notwithstanding my awe

and worship, it sometimes occurred to me that he went out very regularly on Sunday evenings, just after Bessy and the maid set forth to church; that he must have taken a particular fancy to the green-grocer my aunt patronised, as I often noticed him lingering near the shop; and probably sent intimations of his good-will by Bessy, for more than once I espied him speaking to the child on the stairs, and evidently intending not to be seen.

I had heard that great men were often eccentric, and doubtless these were the eccentricities of Mr Simington; but as his peculiarities were too sacred to be observed by an optician's apprentice, I made no report on the subject, and nobody else appeared to have taken notes. Thus things went on, I cannot precisely say how long. The ladies were every day getting stronger in their public convictions of Mr Simington's perpetual celibacy, and more resolute in carrying on their private sieges. I could have taken ten to one on my aunt's chance; it was the best in everybody's eyes but those of the other three. The summer was drawing to a close, and Mr Simington preparing for a tour in Scotland, which he had talked about since the season began. The day of his departure on that journey was one of extraordinary bustle in our establishment. The four had been up most of the preceding night packing his carpet-bag, preparing delicacies for his refection in steamer and train, and giving him good advices against catching cold and rheumatism. No wonder he looked jovial over the abundant breakfast devoted to his service—so should any man if half so well taken care of. Mr Simington was mighty in jokes and great in compliments that morning; the ladies, one and all, declared they must go somewhere, the house would be so dull till he came back; and I saw Bessy in the decenter frock she had—by the by, it was also the shortest—steal past the window with her basket; she was doubtless bound for the green-grocer's. Nobody thought of her at the leave-taking, which was extra-impressive. Mr Simington's squeezes of eight fair hands were matters to be remembered; the adieus and good-wishes he got might have served all the travellers that ever crossed the Tweed; but at length the ceremony came to a close, and the cab drove away with him and his carpet-bag.

The optician had given me a fortnight's holiday; it commenced that same morning; and instead of going to business, as usual, I also was packing up and getting ready for a small excursion. But nobody took trouble with my travelling-gear. My undarned socks and buttonless shirts had to do duty abroad as well as at home. I was not an East India merchant with my fortune made, and where was the use of envy and grumbling? A ring at the door-bell, loud enough to reach my back attic, made me pause and listen. Mr Simington was not more than two hours gone, yet that was his name which I heard my aunt utter in a kind of a shriek. I had left the ladies talking in the breakfast-parlour, and there I found them on my rapid descent, gathered round Mrs Somers, who clutched convulsively a pair of wedding-cards, while she questioned the waiter of the Barnsbury Hotel.

'It took place, ma'am, about one hour ago,' said that messenger of fate, making great efforts to preserve his gravity. 'Miss Somers dressed at our house, and I must say looked uncommon well in her white silks and fine bonnet. My missus went to church with them. It was done by special licence, you see. Mr Ross, the gentleman as always stops with us, and knowed Mr Simington from a boy, gave the bride away; and, indeed, ma'am, she got through it wonderfully. I went to see it myself, havin' a great likin' for marriages. The 'appy pair, as I may say, waited no time after; they're off to Scotland, ma'am, by the Great Northern. But Mr Ross is to do the sendin' out of the cards; and says he, tippin' me half-a-crown, like a gentleman, as he is: "Waiter," says he, "run with

these to Mrs Somers; she has the best right to the earliest intelligence, for Mr Simington was her principal boarder."

### THE PATRIMONY OF ST PETER.

PONTIFICAL supremacy was, in the beginning, of a spiritual nature only. After the fall of the Western Empire, and the reconquering of Italy by Belisarius and Narses, Rome, though enjoying a pre-eminent position among the Christian churches, held but a low secular rank among the principalities of Italy. The city and its adjacent territory were governed by a prefect, appointed at Constantinople, and subject to the exarch of Ravenna. About the year 720, Leo, the Isaurian, engaged in his crusade against the Iconoclasts, or image-worshippers; the then pope, Gregory III., attempted to induce the emperor to relax in his severity; finding Leo deaf to argument and entreaty, he boldly declared Rome independent of the empire, and offered the consulate to Charles Martel. He formed an alliance with the Dukes of Benevento and Spoleto, and the king of the Lombards; an alliance of but short duration, as far as the latter nation was concerned. Their king, Astolfo, invaded the duchy during the pontificate of Stephen II., who, seeing no other means of ridding himself of the Lombards, invoked the aid of Pepin the Younger, in the name of the church and of the dukes, counts, tribunes, and people of Rome. Pepin quickly responded to the appeal; drove Astolfo out of the exarchate, and made him deposit on the altar of St Peter's, at Rome, the keys of Ravenna, Rimini, Pesaro, Fano, Cesena, Urbino, Forlì, and fifteen other towns, the government of which Pepin, to the great indignation of the Greek emperor, handed over to the Holy Church of God and the Roman Republic. Astolfo broke the peace, immediately Pepin's army had retired, for which bad faith he was punished by being compelled to add the city of Comacchio to the papal dominions. From this time (726), the popes assumed the language of temporal sovereigns, and dated their rescripts by the years of their own pontificates. Still the papal rule was more nominal than real. The Lombards were the actual masters of the ceded towns, till Charlemagne finally overthrew their power; but this does not seem to have much altered the position of the pontiff, as the conqueror kept all the regal rights to himself; and although again and again besought for the good of his soul to fulfil his promises in favour of the church, the most he did was to allow the see to receive the revenues of the exarchate.

When the imperial sceptre passed from Frankish into German hands, the temporal influence of the church was still further lessened, and we find Henry III. nominating popes as regularly as Queen Victoria nominates Anglican bishops. Gregory VII., a bold, enterprising, energetic man, taking advantage of the minority of Henry IV., resolved to free the pontificate from its subservience to the empire; and at his instigation, a council assembled at Rome declared that henceforth no layman could confer any clerical office. Astute as he was bold, Gregory gained over to his side many of the German princes by pronouncing the empire to be an elective not an hereditary monarchy. A fierce and lasting contest arose between the empire and the papacy for supremacy; the pontiff was again and again driven from his capital, and forced to see anti-pope after anti-pope elevated to the apostolic throne. In 1102, the Countess Matilda, an enthusiastic supporter of Rome, left to the pope her fiefs of Parma, Mantua, Modena, and Tuscany; but they were immediately seized by the emperor, and, with the exception of the first named, never came under the papal rule. A century later, Innocent III. persuaded the towns of Spoleto, Foligno, Gubbio, Rieti, Perugia, Assisi, Nocera, Citta di Castello, Todi, Fermo, Osimo, Fano,

Jesi, Sinigaglia, Camerino, Pesaro, and Ancona, to swear allegiance to the see of Rome, and guaranteed the inviolability of their municipal charters.

In 1278, Rudolph of Hapsburg, at the instance of Pope Nicholas, formally defined the States of the Church as extending from Radicofani to Ceperano, near the Liris, on the Neapolitan frontier, and as including Perugia, Bologna, Bertinoro, the duchy of Spoleto, the exarch of Ravenna, and the march of Ancona. The inhabitants were absolved from their oaths of allegiance to the empire; Rudolph renouncing for himself and successors all rights over the said places, and acknowledging the sovereignty of the pope. This sovereignty was little more substantial than a title of courtesy. Perugia, Ancona, and Bologna were republics, and many of the other towns hereditary principalities, in which the influence of the pope was of the slightest; and even this hold became weakened by the seventy years of Avignon exile. Poor, however, as the papacy might be in temporalities of its own, it was powerful enough over those of other people. An English monarch did not scruple to humiliate himself and his subjects by holding his kingdom as a fief from the pope; a king of Aragon resigned his realm to the pontiff; and a foreigner was inducted into the throne of Naples by the hierarch of Rome.

Sextus IV., having to provide an appanage for a nephew, cast his eyes upon the beautiful and fertile plain of the Romagna, a prize for which various Italian princes were then contending. By dint of intrigue, perjury, and murder, Sextus attained his object, and had the satisfaction of hailing Girolamo Riario lord of Imola and Forlì. In a few years, Sextus made way for Alexander VI., and Girolamo left his principality to his widow. She did not long enjoy it. She was driven out of the Romagna, and Cæsar Borgia reigned in her stead. Alexander the infamous, and his yet more infamous son, joining the Guelph faction, drove Sforza from Pesaro, Malatesta from Rimini, Manfredi from Faenza, and installed themselves as masters in those cities. Not content with thus spoiling their foes, the worthy couple next turned their arms against their allies. The Duke of Urbino had to flee for his life; the chiefs of the Orsini party were entrapped and assassinated by Cæsar, and their territories added to his ill-gotten dominions. The death of Alexander wrought a change. The old lords of the land, the Colonnas, Orsinis, and Malatestas returned to Italy, and recommenced their internecine strifes. The pope, Julius II., bent, not on family aggrandisement, but on enriching the papal see, seized Borgia's dukedoms and castles, pacified the lesser nobles, and waged war on the more powerful ones. Perugia, Bologna, and the Romagna were speedily annexed to his dominions. Old and enfeebled as he was, Julius took the field in person against the Venetians, and crossing the frozen ditches of Mirandola, drove the enemy from the coast, and, thanks to his Swiss and Spanish troops, made himself master of Parma, Piacenza, and Reggio. Parma was afterwards severed from the Papal States by Paul III., who bestowed it on his son; but before he died, he again reunited it to Rome; to be finally disjoined by his successor, Julius III.

The Venetian envoys, who travelled through the States of the Church in the early part of the sixteenth century, are loud in praise of the fertile and beautiful territory which acknowledged the representative of St Peter as its master. 'We travelled from Macerata to Tolentino, through a district of surpassing loveliness. Hills and valleys were clothed with grain; throughout an extent of thirty miles, nothing less rich might be seen. Uncultivated land we could not find for the breadth of a foot.' At this time, the Campagna not only supplied sufficient grain for the use of the capital and its neighbourhood, but aided the adjacent states, and even supplied foreigners from its abundance. Nor were other productions wanting. Perugia



was famed for its hemp, Faenza for its flax, and Viterbo for both; Montefiascone and Cesena were noted for their wines, Rimini for its oil, Bologna for its woad, San Lorenzo for its manna, and the Campagna for its breed of horses. The lakes abounded with delicious fish; and alum, salt, sulphur, and marble enriched the owners of the soil. The harbour of Ancona was crowded with vessels from the Levant, and its city with merchants from all quarters. The martial reputation of the States was also great: the people of Perugia made steady soldiers; the inhabitants of the Romagna were as brave as they were imprudent; the Bolognese full of courage, but neglectful of discipline; the warriors of Faenza were both firm in fight and swift and untiring in pursuit; those of Forlì excelled in manœuvring, as the dwellers in Fermo surpassed all others in the use of the lance. In fact, the whole population were martially inclined, and apt in the use of the weapons of war. Venice drew her best troops from among them, and they boasted that they could supply all the princes of the world with captains of tried valour and skill.

Destruction threatened the temporal power of the pontificate under Leo X., when by the defeat of the Swiss at Marignano, the Papal States lay at the mercy of the French king. Leo proved equal to the emergency; against the advice of his council he sought an interview with Francis, and by sacrificing Placentia and Parma, secured the remainder of his dominions, and delivered Italy for a time from the presence of the French soldiery. The pope, placed as he was between the rival powers of France and the Empire, had no easy game to play, and Leo's policy was more wily than honest. When war broke out between Charles and Francis, he could no longer remain neutral, but naturally sided with the former, and just lived long enough to receive his reward, by recovering the lost provinces for the papal see. Gregory XIII. wrested Castelnuovo, Corcana, Lonzano, Savignano, Bertinoro, and Verrucchio from their hereditary rulers. In 1598, the House of Este were compelled to resign Ferrara, Comacchio, and their portion of the Romagna; and forty years afterwards, on the death of the aged Duke of Urbino, Francesco Maria, Taddeo Barberini at once seized upon his principality, and annexed it to the States of the Church, much to the indignation of the inhabitants, to whom the change was anything but agreeable; the year 1650 saw Ronciglione and the duchy of Castro added to the pope's territories; and here the catalogue of annexations ends.

The French Revolution did not spare the Holy Father. In 1797, General Bonaparte constituted the Cisalpine Republic, making Bologna, Ferrara, Ravenna, and Forlì members of the new confederation. In 1801, the Legations were restored to the pope, but only for a short period. Napoleon having resolved to erect a kingdom of Italy, marched on Rome, and declaring that temporal sovereignty was incompatible with the exercise of spiritual power, formally annexed the ecclesiastical states to the French empire, and Pius VII. became virtually a prisoner in France, and was forced to accede to his conqueror's demands. The pontiff patiently watched events, and bided his time. Every reverse sustained by Napoleon was a step towards the pope's deliverance from bondage. At length the opportunity came, and Pius lost not a moment in declaring his concordat with France to be null and void, and in making his way towards his dominions, which he re-entered while the allied armies were marching triumphantly into Paris. By the treaty of Vienna—thanks to the three great anti-catholic powers, Russia, Prussia, and England—the pope received back his territory almost intact, a few insignificant portions of it on the left bank of the Po, which were alienated from the ecclesiastical states by the valley of that river having been constituted its boundary, being the only territorial loss; but Austria

reserved the right of recruiting in Comacchio and Ferrara.

In 1830, the people of Ancona and Bologna, rendered desperate by clerical misgovernment, rose in insurrection, to succumb to an Austrian army which was speedily marched to the pope's aid. The grievances of the subjects of the church were, however, so palpable, that even Austria united with the other great powers in recommending Gregory XVI. to reform the most flagrant abuses, by admitting laymen to the exercise of judicial and administrative functions. The only result of this interference was a slight modification of the municipal law; and the Bolognese again rose against their rulers. This second insurrection afforded a pretext for massacring the inhabitants of the offending city, and for a fresh advance of Austrian troops, to balance which, a French force took possession of Ancona, and thus commenced the system of occupation. Ancona was freed from its unwelcome protectors at the end of six years, and the Austrians at the same time withdrew from the Legations. In 1846, Pio Nono ascended the pontifical chair, and electrified the world by the appearance of a pope in the character of a political reformer. The liberal ideas promulgated by Pius so displeased Austria, that she moved her troops into the Papal States; but upon a remonstrance being addressed to the European powers on the subject, the white-coated legions were ordered home again. For awhile, Pius persevered in the path of progress, and his name seemed likely to become the watchword of the peninsula; but, bullied by his neighbours, and alarmed by the rapid spread of revolutionary movements in Italy, after the success of the Parisian insurrection in 1848, he lost courage, and halted when he should have pressed forward. At such a time, to hesitate was to be lost. The people rose, and the apostolic vicar fled from his subjects in the meanest of disguises, while a republic was proclaimed at Rome. How that republic struggled against the forces of false France, despotic Austria, priest-ridden Naples, and effete Spain, is too well known to need recapitulation. Its fall left an indelible stain upon the leaders of the French republic—a blot not all the special pleading of a Montalembert can obliterate. Pius IX. returned to his dominions the hated protégé of France. For ten years he has held his throne by the precarious tenure of foreign bayonets. Like his Bourbon neighbour, experience has rendered him no wiser; and, like him, he is now reaping the whirlwind. Day by day, the temporal possessions of the see of Rome are being absorbed in the new kingdom of Italy, and he may esteem himself fortunate if he is able to leave his successor so much as the capital of the long-held States of the Church.

The *Stato Pontificio*, before Victor Emmanuel incorporated the Romagna, possessed a population of 3,124,178, occupying an area of 16,155 English square miles, and was divided into twenty provinces. In some of these provinces, oranges are cultivated to perfection; in others, the hills are seldom seen without a covering of snow, so different are the climates of the various members of this ill-conditioned body-politic. In the plains of Rome, there is no lack of figs, citrons, oranges, and pomegranates; cherries, chestnuts, and walnuts abound in the Apennines; the cork-tree flourishes in the woods of Terracina, and the forests supply the pope's subjects with fuel. Wheat, maize, and barley are produced in sufficient quantities to allow of exportation; but then little is kept for home consumption, the masses finding a substitute for bread in beans, chestnuts, and onions. With the exception of an occasional piece of bacon or sausage, animal food is rarely eaten by the poorer population, although sheep, goats, and swine are numerous enough in the states. Flax, hemp, and saffron are cultivated to some extent, and the raising of cotton is rapidly spreading. The olive grows

everywhere. The vine is also to be found in almost every part, but so carelessly cultivated, that the wine produced in the Roman territory bears no great reputation. Oxen are universally used for the plough; the ass and mule are the common beasts of burden in the Apennines; the country was once famous for its breed of Borghese horses, but the race is well-nigh extinct, and the trade quite so. The cows are the most favourable specimens of the animal kingdom to be found, and may be seen roaming freely about the Campagna; their owners finding their profit in selling their calves to the butcher, rather than transforming the milk into butter and cheese. Silk forms an important item in the agricultural statistics of the papal patrimony, the soil being particularly adapted for the white mulberry. Bologna, which once held a monopoly of the crape trade, is the chief seat of the silk manufacture. The states also produce paper, leather, linen, and woollen cloths; glass, pottery, tallow, wax-candles, and artificial flowers; alum, salt-petre, culinary salt, and sulphur. The exports in 1853 amounted to L.1,659,950, the principal items consisting of hemp, wheat, maize, rice, silk-thread, cattle, works of art, cordage, fish, furs, skins, stone, and building materials; the imports being close upon a million in excess of the exports. Ancona is the principal trading port; in 1857, there were entered inwards 684 vessels, of 110,704 tons; and 652 vessels, of 104,786 tons, entered outwards.

This country, by no means maltreated by nature, is governed, or misgoverned, by an unlimited elective hierarchy, administered by a Council of Ministers under the Cardinal Secretary of State for Foreign Affairs, and presided over by the pope. There are separate ministers for the interior, for grace and justice, for finance, for war, for police, for commerce and public works, and for fine arts, who are usually ecclesiastics or prelates, although laymen may be chosen for any of these offices. The word 'prelate' needs a little explanation. With us, it is necessarily synonymous with 'ecclesiastic'; but at Rome, a prelate means any man possessed of the degree of doctor of law and a small independence, who chooses to enter the prelature, which entitles him to employment in the pontifical household, with the chance of becoming nuncio, delegate, governor of Rome, or even cardinal. These gentlemen are styled Monsignore, and as long as they retain the office, must not think of taking a wife. The cardinals, limited to seventy, are appointed by the pope, styled Princes of the Church, and constitute the Sacred College, which meets in secret conclave ten days after the death of a pope, and elects one of its members to the vacant chair, a majority of two-thirds being requisite to make the election valid. There are three classes of cardinals—cardinal bishops, of whom there are six; cardinal priests, to the number of fifty; the remaining fourteen bearing the lowlier title of cardinal deacon.

The judges of the land are appointed by the pope, and removable at his pleasure. Each province has its tribunal, with courts of appeal at Rome, Macerata, and Bologna, and a still higher court at Rome called the Corte della Signatura. The proceedings are open to the public, excepting in the case of trials for political offences, when the prisoner can only be defended by the official advocate, and is not allowed to see the witnesses against him, or even to know the nature of the evidence upon the refutation of which his liberty or life depends. Such is the infallible priest's idea of justice! Ecclesiastics can only be tried by ecclesiastical courts, which possess the power of imprisoning any person on the ground of immorality—a power in such hands terrible indeed.

The Papal States boast of two primary and six secondary universities, the oldest of which is that of Bologna, dating from 1119. Episcopal towns have their schools for educating for the church, and the more prosperous communes rejoice in primary schools

under the direction of the parish priest. Education, of course, is entirely in the hands of the clergy, and, as a natural consequence, the lower classes of the pontifical states are, with the exception of the population of the Two Sicilies, the most ignorant of any in Italy. The church is the curse of the land: within the limited area over which Pio Nono was called to reign, there are no less than nine archbishoprics and fifty-two episcopal sees. Six hundred nunneries and 1800 monasteries are spread over the states, which harbour 8000 nuns, 21,415 monks and friars, and 16,905 priests. Rome itself numbers 1800 nuns and 4500 priests, monks, and friars among its 178,500 inhabitants.

The revenue of the popedom, according to an official return for 1857, amounted to L.3,009,524, the expenditure during the same period being L.3,104,692, leaving an acknowledged deficit of L.95,168; but with such a pecuniary position, the papal financialists are well qualified to deal, for, since 1828, the Roman government has never, even for a single year, lived within its income.

## THE WILD HUNTRESS.

CHAPTER LXIII.—A PITILESS PASTIME.

YES—to hold a shooting-match was undoubtedly the design of my captors; and equally clear was it that my breast was to be their mark. This explained my position upon the summit of the mound, as well as my attitude upon the cross. I was bound to the latter that I might be held erect, spread, and conspicuous.

I could not comfort myself with any doubt as to their intention. Every movement I saw confirmed it; and the question was finally set at rest by Red-Hand possessing himself of one of the loaded muskets, and making ready to fire.

Stepping a pace or two in front of the line of his warriors, he raised the piece to his shoulder, and pointed it towards me.

It is vain to attempt describing the horror I endured at that moment. Utterly unable to move, I gazed upon the glistening barrel, with its dark tube, that threatened to send forth the messenger of death.

I have stood before the pistol of the duellist. It is not a pleasant position to be in, under any conditions of quarrel. Still is it perfect happiness compared with that I then held. In the former case, there are certain circumstances that favour the chances of safety. You know that you are *en profile* to your antagonist—thus lessening the danger of being hit. Judging by yourself, you feel assured that the aim taken will be quick and unsteady, and the shot a random one. You are conscious of possessing the capability of motion—that whether you may feel inclined to give way to it or not, you still have a certain discretion of avoiding the deadly missile—that by your own skill or quickness, you may hinder it from being sent.

There are other circumstances of a moral nature to sustain you in a trial of this kind—pride, angry passion, the fear of social contempt, and stronger than all—perhaps most frequent—the jealousy of rival love.

From none of all these could I derive support, as I stood before the levelled musket of the Arapaho. There was no advantage—either moral or physical—in my favour. I was broad front to the danger, without the slightest capacity of 'dodging' it; while there was nothing to excite the nerves of the marksman, or render his aim unsteady. On the contrary, he was sighting me as coolly, as if about to fire at the trunk of a tree!

It may have been but a minute that the savage occupied himself in adjusting his aim; but to me it appeared ten. In such a situation, I may have believed the seconds to be minutes: they seemed so.

In reality, the time must have been considerable. The beads of sweat that had started from my brow were chasing each other down my cheeks, and dropping upon my breast. So prolonged was my suspense, I might have fancied that the Arapaho was designedly dallying with his aim, for the purpose of sporting with my fears.

He may have had such motive for procrastination. I could believe it. Distant though he was, I could mark his fiendish smile, as he repeatedly dropped the piece from his shoulder, and then returned it to the level.

That he meant more than mere menace, however, was proved in the end. Having satisfied himself with several idle feints, I saw him make demonstration, as if setting himself more eagerly to the work. This time he was in earnest. His cheek lay steadily along the stock—his arms appeared more rigid—his finger was pressing on the trigger—the moment had come.

The flash from the pan—the red stream poured forth from the muzzle—the hist of the bullet, were all simultaneous. The report came afterwards; but, before it had reached my ears, I knew that I was untouched. The lead had whizzed past, at a distance, as I could judge by the sound, of several feet from my body.

I heard a scratching behind me; and the instant after, a savage face came before my eyes. It was that of the artist, who had painted me for the part I was playing. I fancied he had gone down to the plain, but no. He had remained near me, concealing his body behind the rock. He was now enacting a different rôle—that of marker for the marksmen.

Running his eye over my body, and perceiving that I was nowhere hit, he telegraphed the intelligence to his comrades upon the plain; and then glided back to his covert.

I was relieved from the terrible anxiety, but only for a short moment—a mere interval of about a dozen seconds' duration. The Red-Hand, after firing, had resigned his place. This was instantly occupied by one of his sub-chiefs; who, armed with another musket, came up to the line in a similar manner.

Again saw I the gleaming barrel brought to the level, with its dark tube pointed upon my body.

This fellow was more expeditious; but for all that, it was a moment of racking torture. Again did the drops bead out upon my brow, and chase one another down my cheeks. Again had I to undergo all the agony of death itself—and, as before, without dying, or even losing a drop of my blood!

As before, I beheld the puff of smoke, the flash, the blaze of fire projected from the muzzle; but ere the crack reached me, I heard the 'thud' of the bullet, as it flattened against the granite below my feet.

This time the marker did not mount up on the platform. He had seen the splinters shivered from the rock; and without further inquiry, he, for the second time, telegraphed a miss.

A third marksman soon appeared upon the stand; and my fears returned—as acute as ever. This fellow caused me to suffer nearly a dozen deaths. Either was his gun without a flint, or his powder damp; for, after snapping it nearly a dozen times, the piece refused to go off. Had it been designed for a new horror, it could not have been better planned. Each time that the savage essayed to fire, I had to undergo the agony of a fresh apprehension.

It ended by another gun being placed in his hands, that *did* go off, but with no advantage to the clumsy marksman; for his shot, like that of the Red-Hand, whistled past, far wide of the mark.

A fourth now took the ground. This was a tall, swarthy warrior—one of the tallest of the tribe; and without the insignia of a chief. The cool and deliberate manner in which he went about his work, caused me to anticipate in him a better shot; and my apprehensions were heightened to a degree of painful intensity.

I felt my whole frame shiver as his gun went off; and for a time I believed myself hit. The cheer of his companions upon the plain announced their belief in the success of the shot; but he upon the summit soon undeceived them—as I was myself reassured. The bullet had struck the wood-work of my crucifix—one of the cross-pieces to which my arms were bound. It was the shock of the timber that had deceived me into the belief that I had been hit.

A fifth marksman followed; and then another and another, until more than a dozen had tried their hands. The guns were all emptied; but this caused only a short cessation in the cruel sport. They were soon reloaded; and new candidates stepped forward to make trial of their skill.

I had by this time discovered that they were not practising for mere sport.

It was a *game*, and bets were upon it. Apart upon the plain, the stakes were laid—consisting of saddles, robes, weapons, and the plunder of the wagon. Horses also were picketed near—surplus animals—that were set against one another; whether in many separate wagers, or all forming a grand 'pool' I could not determine. My own scalp—I was uncertain whether I still wore it—was no doubt the chief object of the contest. It was the 'cup,' to be given to him who should place his bullet in that white circle upon my breast, and nearest the red spot in the centre!

The guns once more reloaded, the firing recommenced. But one shot was allowed to each; and this only to those who had placed a stake. The condition gave me an opportunity of experiencing my apprehensions in different degrees; since, according to the apparent adroitness or clumsiness of the marksman, my fears of being hit were greater or less.

Strange to say, before a dozen shots had been fired, *I no longer wished them to miss!* The dread ordeal so oft repeated, was too terrible to be borne. I was sustained by no ultimate hope of escape. I knew that the fiends would continue firing, till some one of them should finish me by a fatal shot; and I cared not how soon it should be sent. I desired it to come. Death was preferable to the agony I was enduring.

#### CHAPTER LXIV.

##### THE THOUSAND DEATHS.

For a full hour was the pitiless sport continued—during which at least fifty shots had been fired at me. The truculent chieftain had threatened me with a thousand deaths. He was fulfilling his threat to the letter; for notwithstanding the unskilful practice, I could not help, on the eve of each discharge, experiencing a certain creeping of the flesh, and curdling of the blood, as if that moment was to be my last. If I had not yet died a thousand times, for at least a hundred had I felt all the sensations that should precede actual death. Over a hundred times; for although but fifty shots had been fired, twice as often had the old guns snapped or flashed in the pan; and each of these was preceded by its especial pang.

I had not escaped altogether unscathed: I had been hit in two or three places—in my arms and limbs. Blood was running down my legs, and creeping over my feet. I could feel it warm and wet, as it trickled between my toes. In a little hollow of the rock, directly in front of me, a crimson pool was collecting.

The wounds could not be severe; since I scarcely felt them. Perhaps only the crease of a bullet? A scratch would be sufficient to cause the effusion of the blood, copious as it appeared to be. I felt certain that no bone had yet been broken—that no vital part of my body had been touched.

After about an hour had been spent by the savages in this dastardly practice, the firing became suddenly suspended. I could not tell why; and sought for



an explanation by watching the movements of the marksmen.

Had they exhausted their ammunition? This was the idea that came uppermost.

The chiefs had turned face to face, and were again engaged in some earnest deliberation.

The subject of their talk was made known by their gesticulations. They were pointing towards Sure-shot, who still lay, as I have described, flat upon his face. Wingrove was no longer there; nor yet Su-wanee! Where could they have gone? I had seen both but the moment before! Had she unbound, and rescued him? Was it about them that the savages were in consultation?

The result proved not. It was the deserter who was the object of their attention. Half a dozen Indians were seen separating from the group. They ran up to the spot where Sure-shot lay. Stooping around him, they undid his fastenings; and then, raising him to his feet, commenced dragging him towards the crowd.

The terrified man made no resistance. It would have been idle. There was a brawny savage on each side, grasping him by the wrist; and three or four behind pushing him forward at a run. His long hair streaming loosely, strengthened the expression of despair that was depicted upon his countenance. No doubt he deemed it his last hour. Whither could they be dragging him? whither but to death?

This was my own belief—at first; but in a few minutes I had reason to change it. For a short while, Sure-shot was encircled by the dusky forms, and I saw him not—or only the crown of his head—conspicuous by its yellow hue among the darker *chevelures* of those who surrounded him. What they were doing to him, I could not guess; but they appeared to be offering no further violence.

After a time, the group scattered from around him, and the ex-rifleman was again uncovered.

With some surprise, I perceived that the expression of his countenance had undergone a total change. It was no longer that of terror—much less of despair. On the contrary, there was a certain air of confidence visible both in his face and manner—as if something had been said, or done to him, that had given him satisfaction!

I was further surprised at perceiving that he had a gun in his hands—his own rifle—and that he was in the act of charging the piece!

My surprise changed to indignation as I saw him step forward to the line, and stand facing me—evidently with the intention to fire!

'Cowardly traitor! he has accepted life upon some base condition. Jeph Bigelow! Sure-shot! whom I thought true as steel! I would not have believed it.'

Such was the reflection, to which my gag prevented me from giving utterance.

In reality, I felt astonished at the behaviour of the old ranger. I believed him a better man; but the dread of death is a powerful test to apply to the human soul; and hard must be the conditions of life when they are refused. Sure-shot had succumbed to the temptation.

Such was my belief, as I saw him raise his piece, and stand confronting me—in an attitude that too plainly bespoke his intention.

Another surprise awaited me—another stimulus to my indignation. Instead of looking ashamed of his work, and cowering under my glance, he appeared eager and determined. There was even an expression of fierceness, ill becoming his countenance habitually meek. Under other circumstances, it would have been ludicrous enough. 'Bravado,' thought I, assumed, no doubt, to give satisfaction to his new allies.

I had not recovered from the confusion of my surprise, when his voice fell upon my ear, uttered in a tone of anger, and accompanied with corresponding gestures. But the words that reached me explained

all. On hearing them, I no longer suspected the loyalty of my old comrade. The angry expression was assumed. The counterfeit had a design, far different from that which I had attributed to it. It was Sure-shot himself—still crafty as true.

'Captin!' cried he, speaking quickly, and raising his gun with a gesture of menace, 'pay 'tention to whet I air about to say. Look savagerous at me, an' make these yer verming b'lieve you an' me's quelling. Fo'most tell me, ef they've krippled ye about the legs? I know ye can't speak; but shet yer eyes, an' thet says "No."'

I was for the moment puzzled, by the matter as well as manner of the speech, which in no way corresponded. In an instant, however, I perceived that he had some design; and I hastened to obey his hurried instructions.

As to the first, I needed to make no alteration in my demeanour. Under the belief that he was disloyal, I had been regarding him with a glance sufficiently scowling. I preserved the expression—at the same time closing my eyes, as a negative answer to his query. Although wounded about the legs, I felt sure that I was not 'crippled.'

'So fur good!' continued he, still speaking loudly and angrily. 'Neow! alew yer right elbow down a leetle, an' gi' me a better chance at thet oer strip o' hide. I kinder guess as heow I kin cut the thing. It 'peers to be all o' one piece, an' 'll peel off yer body like a band o' rushes. Ef I cut it, theer 'll be a chance for ye. Theer's only one o' the verming ahint the mound. Yeer hoss air theer; make for the anymal—mount 'im, an' put off like a streak of greased lightnin'! Neow!'

As he finished speaking, he stepped nearer to the line, and placed himself in an attitude to fire at me.

I had now comprehended his design. I saw, as he said, that the cord which bound me to the crucifix was all of one piece—a thin thong of raw hide—lapped tightly around my arms, legs, and body. If cut through at any point, it could easily be detached; and, true enough, my horse must be behind the butte, for I could not see him. By a quick run, I might succeed in reaching him, before the Indians could intercept me? If so, then indeed might there be an opportunity of escaping.

#### CHAPTER LXV.

##### A SHARP SHOT.

Slight as appeared the chance of my being freed from my fastenings, by the method proposed, I was not without some faith in Sure-shot being able to cut the thong. His skill in the use of the rifle was notorious among good marksmen, and his aim believed to be unerring. I had known him to bring down with his bullet a small bird upon the wing; and had heard him declare that it was not by the eye but by the hand that he did it. In other words: he meant that his skill was not mechanical, but that he was guided in the act by some mental operation—which he himself but imperfectly understood. I could believe this the more readily—since Sure-shot was not the only marksman I had known possessed of this peculiar power. A something inexplicable, which may be classed with the mysterious phenomena of clairvoyance and 'horse-whispering.'

With such belief in his skill, I was not without faith that he might succeed in his design; and, to give him the chance he desired, I made a violent effort, and wrenched my arm downward. It was to all appearance a demonstration of my wrath, at what the pseudo-renegade had been saying to me; and it seemed to be thus interpreted by most of the savages who stood around him. The words of Sure-shot, spoken in English, were of course unintelligible to them; but notwithstanding the inappropriate gestures

which he had used, the suspicions of one were aroused. This was the Red-Hand himself.

'What says he of the yellow scalp-lock to our captive?' inquired the chief in Spanish. 'Let him take heed, or he too shall become a shooting-mark for the Arapaho warriors!'

Sure-shot's reply was characteristic. It was also in broken Spanish, which the ranger had picked up during our campaign on the Rio Grande. Translated, it ran thus:

'I'm only telling him how I'm about to get square with him. *Carrambo!* great chief! when I was a soldier in the army, yon fellow was my *capitano*, and gave me a flogging. Believe me, I'm right glad of this opportunity to have revenge on him. That's what I was telling him.'

'Ugh!' grunted the savage, apparently satisfied with the explanation.

'Neow, captiv!' angrily shouted the rifleman, once more raising his piece to the level, 'look e' out! Don't be skeer't about my hittin' o' ye! The whang lies well agen the board. The ball's a big 'un. I recking I kin bark it anyheow. Heer's to try!'

A tall yellow-haired man standing with a rifle to his shoulder—his sallow cheek resting against the stock—the barrel apparently aligned upon my body—the flash of a percussion-cap—a stream of red fire and smoke from the muzzle—a shock, followed by the quivering of the timbers to which I was tied, were perceptions and sensations of almost simultaneous occurrence.

Twisting my head, and turning my eyes almost out of their sockets, I was able to note the effect of the shot. The thong had been hit, just at the point where it doubled over the edge of the wood. It was cut more than half through!

By raising my elbow to its original position, and using it as a lever, I could tear apart the crushed fibres. I saw this; but in the anticipation of a visit from the marker, I prudently forbore.

Soon after, the grinning savage came gliding in front of me. He perceived the track of the bullet, and pointed it out to those upon the plain. I was in a feverish suspense lest he might suspect design; but was relieved on seeing him step aside, and the shuffling grating noise from behind admonished me, that he was once more letting himself down from the platform.

The crowd had closed around Sure-shot, who appeared to be expostulating, or explaining. I did not wait to witness the *dénouement*. Raising my elbow, and giving a quick jerk, I heard the thong snapping asunder; and saw the broken ends spring out from their folds.

Another wrench set my right arm free; and then, clutching the loosened coils, I unwound them with as much rapidity, as if I had been freeing myself from the embrace of a serpent!

Not one of the Indians saw what I was about, till after I had undone my fastenings. Their eyes had been turned upon Sure-shot—with whom they appeared to be engaged in some angry altercation. It was only after I had sprung to one side, and stood clear of the crucifix, that I heard their ejaculations of astonishment, followed by their wild continuous screaming.

I stayed not to see what they were doing. I merely glanced towards them, as I turned away. They appeared fixed to their places, as if petrified by surprise!

The moments were precious; and, bounding across the platform, I leaped down upon the opposite side.

There was a little shelf about six feet below the summit. It was occupied by the savage artist. He had been seated upon the edge, with his legs hanging over. His back was towards me; and he was only apprised of what had transpired, by seeing me as I sprang down behind him. He had already heard the

yells from the other side; and was just rising to take footing upon the ledge at the moment I dropped down.

He was too late for the accomplishment of his purpose. I saw that he was unarmed; but feared that by flinging himself upon me, he might hold or delay me.

I hesitated not as to what I should do. Rushing forward, I planted my foot against his shoulder, and giving his body a violent impulsion, shot it clear over the edge. I saw it bounding over the angular prisms, and rolling from block to block—till it sunk out of sight amidst the tortuous branches of the cedars.

I ran down the sloping path—taking many yards at a step. Near the bottom, was my horse—with that of Wingrove, and the mules. They formed a little group—but no longer under charge of a guard. The latter had just left them, and was running forward to intercept me. He had a weapon in his hands: it was a gun. He was pointing it upon me as he ran—as if seeking to cover me and fire.

I heeded not the threatening weapon, but rushed straight towards him. I could not go round, for he was between me and the horses. We both ran, as if to meet one another.

When less than five paces separated us, the Indian stopped, sighted me, and pulled trigger. The gun snapped!

Before he could lower the piece, I had clutched the barrel; and, with a desperate effort, wrenched the weapon from his grasp. I made a feint to strike him over the head; he threw up his arms to ward off the blow; but, instead of using the gun as a club, I punched him with the butt right under the ribs; and stretched him gasping upon the grass. He fell, as if shot through the head!

Still holding on to the gun—which, by a strange accident, proved to be my own rifle—I ran up to my horse. The creature welcomed me with a neigh of joy.

It was but the work of a moment to draw the picket-pin, gather up the laryette, and spring to his back. Once there, I felt that I was free!

The Indians came yelling around the butte—most of them afoot, and with no other weapons than the empty muskets. A few, more prudent than their fellows, had rushed towards their arms and horses; but, both being at a distance, they had not yet reached them; and the advantage was mine.

I was no longer hurried in my actions—not even afraid. I had no apprehension of being retaken. On the back of my brave steed, I felt like an ocean cast-away, who has climbed up the sides of a strong ship, and once more stands safely upon deck. From my pursuers, I could gallop away at will; and, after taking time to adjust my laryette as a halter, I gave the head to my horse, and rode off.

My Arab needed no urging. Up the valley went he, like a bird upon the wing. I could laugh to scorn the savage pack that came yelling behind me.

#### CHAPTER XLVI.

##### THE CHASE AND THE SYNCOPÉ.

I made direct for the cañon whence issued the stream. Its gap grew wider as I approached it, still appearing only a dark cleft between the rocks, as if the entrance to some subterranean passage.

I looked forward to it with satisfaction. Its shadowy chasm promised shelter and concealment.

When near the entrance of the gorge, I passed the ground where the wagon had been captured. Part of its load—barrels and heavy boxes—were lying upon the sward. They were all broken, and rifled of their contents. The plunder had been carried to the butte. The dead bodies were still there—only those of white men. I even halted



to examine them. They were all stripped of their clothing—all scalped, and otherwise mutilated. The faces of all were blood-bedaubed. Under the red mask, I could not have recognised them—even had they been the faces of old friends! There were six of them. Stripped of their clothing, I could form no conjecture as to who or what they had been—whether teamsters or emigrants, gold-seekers or soldiers. The Mormon could not have been among them; the bodies were all too stout for his; while, on the other hand, there was none of them that could have been mistaken for that of the squatter.

I turned away from the sickening sight, and continued my gallop. My pursuers were a full mile behind me. The sun had sunk over the crest of the cliffs, and I could just see the mounted savages through the darkling gloom—still following as fast as they were able.

In five minutes after, I had entered the gorge. The twilight continued no longer: in the cañon it was night.

I followed the stream upwards, keeping along near its bank. Thick darkness was over and around me; but the gleam of the water and its rippling sound served to guide me on the path. I could not see any track—either of horses or wagons—but I knew they must have passed over the ground. There was a narrow strip of bottom-land thickly timbered; and an opening through the trees indicated the road that the wagons had taken.

I trusted the trail to my horse. In addition to his keen instincts, he had been trained to tracking; and, with his head projected forward and downward—so that his muzzle almost touched the earth—he lifted the scent like a hound.

We could only make progress at a quick walk; but I consoled myself with the thought that my pursuers could go no faster.

Seeing how easily I had ridden away from them, they might abandon the pursuit, returning to revenge themselves upon my fellow-captives.

About these, my mind was filled with bitter anguish; and strange enough, my strongest sympathies were with Sure-shot! I could not help thinking that he had sacrificed himself to save me. There could be no doubt of his having done so. He had been offered life, on some traitorous conditions, and could have lived. The Indian whom I had hurled over the rocks, if still alive, would explain my escape. The cunning savages would easily understand it. My brave comrade would take my place upon the crucifix!

For Wingrove, I had less fear. Surely love—even elighted love—would save him from the sacrifice? Yet, after what had occurred, I had but little reason to hope for him either.

I could think of but one chance of rescuing them: to overtake the train, and prevail upon the escort to return. I even wondered at the dragoons having abandoned the wagon, and left the poor fellows who were with it to their fate! I could only explain such conduct, by supposing that these had been far behind, and that their disaster was still unknown to the people of the caravan. The six men who had fallen might have been the only ones along with the wagon; and their firing, as they defended themselves, might not have been heard? The roar of the water in the cañon might have drowned the reports of their guns; and, as I now listened to its deafening sounds, I could believe in the hypothesis.

Indulging in such conjectures, I had groped my way some two or three miles up the gorge, when I became sensible of a singular faintness stealing over me. A chill crept through my frame—not like that produced by cold from without; but as if the blood was freezing in my veins! The feeling was accompanied by a sense of torpor and lassitude—like that experienced by one falling to sleep in a snow-storm.

I made an effort to rouse myself—thinking it was

sleep that was oppressing me. It might well have been—since it was more than thirty hours since I had slept, and then only for a short while.

It occurred to me that, by dismounting and walking for a distance, I might recover warmth and wakefulness; and with this design, I alighted from my horse.

Once upon the ground, I discovered that I could not keep my feet! My limbs tottered under me, and felt weak as if I had been for months a bedrill; and only by holding on to the withers of my horse, could I stand erect!

What could it mean? My steed turned his face towards me, as if making the same inquiry.

I endeavoured to remount him, but could not. I was unable even to clamber upon his back; and after an unsuccessful effort, I desisted—still supporting myself against his body. Had he moved away, I should have fallen.

And I must have fallen, after my senses left me. In the last gleam of consciousness, I remembered standing by the side of my horse; but I must have fallen, for when thought returned, I found myself stretched at full length along the grass!

## THE JULY ECLIPSE THROUGH FRENCH GLASSES.

### IN TWO CHAPTERS.—CHAPTER II.

IN closing our former chapter, it may be remembered how we left M. Le Verrier, on the very brink of the eclipse, puzzled, distracted, indignant at the inveterate persistence of the thick wet clouds about his mountain-station, and determined at last, in desperate resolve, to break up his carefully organised party—leave one portion of them to their fate in the mists of the 'Sanctuary's' Peak, and, with the other, make a forced march into the plains, and seize on fine weather by dint of sheer resolution. To this determination, the several telegraphic dispatches which he had received from various parts of the country, not a little assisted in directing him; for, from all sides was it flashed along the wires to him, but more especially from the Atlantic sea-board, that the previous fine summer weather had within the last few days received a tremendous unsettlement. So true also were the telegrams in this instance, that wherever any of the astronomers of any nation had posted themselves to observe the coming eclipse, they were found out by the tempest, and covered with its clouds, oppressed by gloom, and anxiety, and doubt during all those preparatory days—Sunday, Monday, and Tuesday—quite as distressingly as Le Verrier himself.

Equally with him, too, does it now appear, on comparing together many accounts, that they availed themselves of the electric telegraph to compare notes instantaneously, as to the condition of the weather at different points; and when reading thus abundantly of their galvanic messages and frequent railway trips, it really begins to alter much of our old ideas touching the march of intellect in Spain. All the observers testify to the alacrity with which the inhabitants at every place had put off ancient prejudices, and prepared to learn any lesson that the scientific foreigners, so suddenly accumulated on their soil, were capable of imparting to them. Every single astronomer, therefore, real or imaginary, English, French, or German, whether armed with a powerful telescope or only a bit of smoked glass, found himself unexpectedly, as the eclipse came on, the carefully and respectfully observed centre of thousands of observers, and treated with the utmost courtesy both before and after the event.

'On Wednesday the 18th,' continues Le Verrier, 'at the very peep of morning, we rapidly descended the abrupt slopes of the mountain, in the midst of a mist which fell in fine rain. Before long, we met the head of a lengthy column of the inhabitants of the adjacent

country, who were ascending to come to our observatory, and of whom the utter astonishment at seeing us leaving, would have been extremely amusing to us, had we been less pre-occupied. Time passed on quickly, and without our having got out of the mist, and it was not until nine o'clock that the first ray of sunshine appeared in the distance. From this moment, however, the sky cleared up before us; and as we marched along, always in the same direction, we found ourselves at last, about eleven o'clock, on a little plateau to the south of the cemetery of Taragona, and under a sky which did not cease to be magnificent during the whole course of the eclipse.

'Some few instants after, we were surrounded on all sides by a numerous population, very obliging, and desirous of being useful to us.

'Our instruments were mounted, our chronometers compared, and we found ourselves ready to observe the eclipse, of which the beginning was imminent. I determined the instant of the first impression of the disc of the moon on the limb of the sun, at 1 h. 43 m. 51.9 s. mean time of Montcayo.

'There were many spots on the disc of the sun; one of them presented two nuclei, separated by a very fine luminous thread, whose occultation took place at 2 h. 43 m. 12 s.

'From this moment, the light of the sun became very feeble; the atmosphere and surrounding objects began to be overspread by those sinister tints which impress so intensely every man who is witness of a total eclipse. But the study of the poetical side of the phenomenon was not in our rôle; and we had steadily to resist giving way to any emotion.

'The last ray of the sun vanished at 2 h. 56 m. 16 s. The total eclipse was then commenced.

'In rapidly writing down this number, I remarked that the general illumination of the atmosphere was much greater than accounts of old eclipses would have led one to suppose, since I could read and write with facility and without the use of lamps, which we had prepared against all events.

'I arrive now at the description of the luminous appendages spread around the circumference of the superposed discs of sun and moon.

'Perhaps, I had said, in the preliminary instructions prepared for the expedition—perhaps some one of the luminous appendages may appear entirely detached from the disc of the moon, and may thus clearly shew its cloudy nature. And the very first object which I perceived in the field of the telescope, after the commencement of the total obscurity, was a cloud isolated and entirely separated from the border of the moon by a space equal to its own thickness; the whole attained a height of about one and a half minutes, upon a length of about double that. The colour of this cloud was a beautiful rose-tint, mixed with violet, the transparency of which seemed to set off by contrast even to whiteness, the brilliance of some of its parts.

'The rest of the western side of the disc, as well as its lower part, did not offer anything strange, except the "corona," the light of which appeared quite white, and extraordinarily brilliant.

'But towards the east, at 30 degrees below a horizontal diameter, I discovered two elevated and contiguous peaks. The upper side of one of these peaks was, like the clouds, strongly tinted with the same rose and violet colours, while the opposite side was white.

'The moment when the total obscurity was to cease now approached; and in order not to lose the time-measure of this important phase, I directed the telescope to the part where the light would reappear; and during the 20 seconds I was waiting thus for the return of the first direct rays of the sun, I obtained the most important part of my observation.

'This border of the disc, which I had found two minutes before perfectly white, was now tinted by a light fillet of inappreciable thickness, and of a red

purple colour; but, in proportion as the seconds passed, this fillet enlarged little by little round the black disc of the moon, to an extent of about thirty degrees, with a red border of sensible thickness, perfectly defined and crescent-shaped, and of which the contour was irregular at its upper part.

'At the same time, the brilliance of the portion of the corona which during the last seconds had emerged from below the disc of the moon, increased with such rapidity, that I was in doubt whether I did not see again the light of the sun. It was not until the appearance of a direct ray, of which the vivacity in its turn effaced that of the corona, that I was sure of the nature of the three phenomena which had almost together passed under my eyes, and of which I make the following résumé:

'1. The visible part of the emerging surface of the sun, through the whole of its extent, and to a height of from eight to ten seconds, was covered by a bed of red clouds, which were seen to increase in thickness in proportion as they emerged from below the disc of the moon. May one imagine that the entire surface of our great star is thus covered over to a small height in proportion as it is strewn with *faculae*; and that the rose-coloured clouds are emanations like the spots which appear on its disc?

'2. The intensity of the light of the corona, a light always perfectly white, varies with very great rapidity in the immediate neighbourhood of the sun's disc.

'3. The reappearance of the direct light of the sun took place at 2 h. 59 m. 15.9 s.; and the total obscurity had lasted 3 m. 14.3 s.

'The disc of the moon had completely quitted the disc of the sun at 4 h. 4 m. 56.9 s.

'Such, then, Monsieur and Minister, is the résumé of whatever observations I have been able to make. In what concerns the corona (*aureola*), I hand over the pen to M. Foucault, conformably to this rule of our establishment, which leaves to each one the care of preparing the part which he has taken up in a combined work of the whole.'

The pen thus officially handed over to M. Leon Foucault, the still young savant, who, a few years since, so astonished and delighted the whole civilised world by producing, in his pendulum experiment, a simple and complete chamber-proof of the rotation of the earth—there follows from him an admirable account of his photographic experiments during the eclipse, conducted mainly with the view of ascertaining the nature of the *corona* or *aureola*—that glory of 'mild light' which surrounds the place of sun and moon during the total darkness, and is one of the strangest features in the whole spectacle. With a very large-lensed camera, mounted equatorially, M. Foucault had intended to take three photographs of the corona on collodionised glass, with the several exposures of ten, twenty, and sixty seconds. This, too, he not only succeeded in doing, but accidentally got something more; for having slightly stumbled in putting in his first plate, some momentary uncoverings, quite unintended on his part, were made, which gave him, as he found afterwards in developing the plates, three more images of the phenomenon, and with exceedingly short exposures. They were also earlier in the course of the eclipse, and have thus furnished some most precious details, to be added to the results of the more regular pictures. Reasoning in a masterly manner, in order to conclude from the appearances on the plates what the characteristic nature of the apparent phenomenon might be, and from that to arrive at its cause, M. Foucault found that the corona has no definite boundary; that it is simply strongest or brightest close to the conjoined edges of sun and moon, and gradually shades off into invisibility in proceeding from them; and that it has radial streamers, which are manifestly produced by visible irregularities on the moon's limb; but yet it does not belong to the moon, for

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it is never seen about it at any other time. It does not belong to the sun, because the moon has been able to mark and influence it; and it cannot be the effect of sunlight on our atmosphere, because that would have to be exaggerated in height up to the moon itself, to explain all the effects. What, then, can the corona be? Nothing more than an optical effect—namely, the 'diffraction,' or peculiar bending of the rays, and alterations in the undulations of light, in passing the edge of an opposing body. This diffraction is a subject which has been much studied by the great mathematical physicists who have built up the undulatory theory of light; and is capable of being shewn very prettily by chamber experiments. They must, however, be very nicely and carefully conducted, and with special precautions; but even then, so little of vigorous effect will be seen, that some persons may be inclined to doubt whether diffraction can ever be expected to rank amongst observed cosmical phenomena. But when, says M. Foucault, we consider that, in the case of the total eclipse, the whole sun is taken as the radiant point of light, the densely opaque body of the moon for the intercepting screen, and the black airless space of the stellar regions for the background—it is plain that the circumstances have a combination of such extraordinary favourableness and power, that we need go no further than this optical appearance, to explain the nature of the corona. The red protuberances, however, he finds to be endowed with a definite border, and to have other features indicating that they may have an actual existence; and, in that case, probably belong to the sun.

With this clear statement, M. Le Verrier's report to the French minister, addressed from Tudela in Spain, on the day after the eclipse, terminates. Having, as we have seen, gained a clear sky almost by force of arms, and having succeeded, both in his own person and that of his talented assistant, in making some observations of a high order and crucial character, he was well pleased. Having written then the preceding *bulletin*, he packed up at once, and returned immediately to imperial Paris. But the poor unfortunates left up in the mountain, M. Chacornac and Yvon Villarceau, with their more powerful but nearly untransportable instruments, what became of them? Yes, indeed, that is worthy of inquiry, and to us especially so; for though matters did look very unpromising, on the morning of the eclipse, for our favourite topic of 'mountain-astronomy,' we had not altogether lost hope; and, when the full accounts did at last come, how startling and how gratifying they were! At the very time that Le Verrier was trudging painfully along, obtaining, as he thought, a clear sky solely by means of his said painful pilgrimage into the flat country, the clouds on the mountain gradually thinned, and presently entirely disappeared; and oh! what a glorious deep blue vault was there then for an astronomer to observe in! Chacornac and Villarceau both sprang to their tasks; and, in the eclipse that soon followed, were able to see so much more clearly than the observers in the low country, that when their reports reached M. Le Verrier in Paris, on the 2d of August, he became excited too, and rushed to take up his pen again, delighted, and even enthusiastically eager, to inform Monsieur the Minister what further magnificent fruit had been produced by his Spanish expedition.

'M. Villarceau,' says he, 'is still in Spain, where he is determining the geographical positions of the stations. M. Chacornac has not yet quitted the "Sanctuary" mountain, where he studies with a powerful instrument a sky which shines with a brilliancy altogether unknown in Paris. These gentlemen having sent me their notes of the eclipse, I find therein, amongst many others, an observation of the very highest importance, on which I will insist; and as I now take up my pen again, I will profit by the

opportunity to develop the views which our observations suggest on the physical constitution of the sun.

'In the first part of my report, I have described the rose-coloured clouds which shewed themselves about the superposed discs of the sun and moon; and I said that MM. Villarceau and Chacornac were ordered to study the heights of one or two of these clouds, and their position on the circumference of our satellite. Let us recall for a moment wherefore these observations were instituted.

"Where did they exist?" says M. Arago, in his notice on total eclipses of the sun—"where did they exist, those rose-coloured flames, with well-defined edges, which extended considerably beyond the disc of the moon during the whole duration of the total eclipse of July 8, 1842? These flames were either in the moon, or in the sun, or in our atmosphere.

'The last supposition,' resumes Le Verrier, 'has met with very few partisans. In all hypotheses, one must, before deciding, pronounce from observation on a particular characteristic of the phenomenon. The disc of the moon moves on that of the sun during the whole of the eclipse; but the luminous clouds, do they follow the movement of the moon? or, on the other hand, does each of them remain invariably fixed over the same point of the sun? In the first case, the origin of the luminous clouds must be sought in the moon; in the second, the clouds belong necessarily to the sun.

'Let us consider, first, on the latter supposition, a cloud, situated to the east, and adhering to the border of the sun. This object will become visible at the moment when the total eclipse commences. Then the moon, regularly advancing at the rate of half a second of arc in one second of time, its disc will successively conceal the lower parts of the cloud, then the centre, and so on. The height of the cloud will thus go on diminishing.

'The inverse of this will take place for a cloud situated to the west. If, then, the rose-coloured appendages observed during total eclipses depend on the sun, one ought to recognise the fact by the variation in height of those of them which shew themselves either east or west.

'In default of clouds about the equator, one may still pursue the disputed question by observation of those that may be met near the south or north of the lunar disc. The height of these clouds, it is true, ought not to vary, whether they belong to sun or moon; but, in the latter case, carried along by the sun, they will displace themselves on the disc of the moon with a quickness which one may calculate.

'The study of the height of the luminous clouds east or west, and of the position of the clouds north or south, offer, then, a very great deal of interest. But, Monsieur and Minister, the whole of the elements of the demonstration searched for, find themselves altogether in the results collected by the expedition which you have sent into Spain. I established, in my first report, the successive increase in thickness of a band of rose-coloured clouds which appeared to the west, at the end of the eclipse. The observations which have come from the Sanctuary will give proof, even to supererogation.

'MM. Villarceau and Chacornac have observed with great care the movement of a cloud situated on the north. This cloud, according to M. Villarceau, was, in two minutes of time, displaced three degrees and a half on the disc of the moon. The measures of M. Chacornac embrace an interval of more than six minutes of time, during which this astronomer has established that the cloud was displaced eleven and a half degrees.

'A beautiful observation, and such as we could not possibly have hoped for! You will indeed remark, that the duration of the movement studied by M. Chacornac much surpasses the duration of the total obscuration. The last measure was performed more



than three minutes after the light of the sun had reappeared.

'Let us add, that the amount of displacement of the luminous clouds established by the observations made at the Sanctuary, is precisely equal to that given by calculation, supposing the clouds to belong to the sun; and there can remain with us now no longer any doubt on the nature of these rose-coloured clouds, which have been successively called flames, mountains, protuberances, clouds.

'Let us give, then, from this time, the name of SOLAR CLOUDS to the rose-coloured appendages which become visible when the light of the sun is sufficiently extinguished.'

After relating a few more observations, all confirmatory, by M. Ismail and others, M. Le Verrier next employs his materials in simplifying the physical theory of the sun, as hitherto generally received, and proceeds much as follows:

'They have been accustomed to assure us that the sun was composed internally of a large and dark globe; that above this globe there was an immense atmosphere of half-dark clouds; higher still, they placed the "photosphere," a gaseous envelope, self-luminous, the source of the light and heat of the sun. When the clouds of the photosphere rend themselves asunder, said they, then you may see the dark body of the sun; thence are the dark spots which present themselves so frequently. To this constitution, so very complex, they would now have to add a third envelope, formed of all the rose-coloured clouds.

'But I fear that the greater part of these envelopes are nothing but pure fiction; that the sun is simply a body luminous by its high temperature, and covered by a continuous stratum of the rose-coloured matter of which we now know the existence. The star, thus formed of a central body, liquid or solid, covered with an atmosphere, re-enters into the common law of constitution of celestial bodies.

'When two rose-coloured protuberances had been observed in the total eclipse of July 1842, persons found themselves, according to the expression of Arago, *put on the trace of a third envelope, situated above the photosphere, and formed of clouds obscure, or faintly luminous*; but they did not yet know from whence these clouds could come. It now appears clear that they emanate accidentally from a bed of matter which covers the whole surface of the sun to a height of eight to ten seconds, equal to the  $\frac{1}{11}$ th part of the diameter of the star. I clearly distinguished this stratum towards the west, and over a great extent, at the moment of emersion. M. Ismail has noted it towards the east at the immersion.

'But, this is not all. When one examines the records of ancient total eclipses, one perceives that observers, provided with good instruments, and not using red glasses, have always indicated the appearance of a purple border, whenever circumstances were such as to permit them to descry it; that is, when the border of the disc of the sun found itself, during the totality of an eclipse, at a small number of seconds from the border of the disc of the moon to the east, or the west, or the north, or the south.

'Thus, the existence of a bed of rose-coloured matter, in part transparent, covering all the surface of the sun, is established by observation. Observation also shews that certain parts of this bed of matter raise themselves frequently above the usual level, and form the cloudy appendages which are nothing but emanations of the atmosphere of the sun, and have the same colour as it. I have not now to examine how this temporary elevation of the matter is produced. Whatever be the constitution of the sun, solid or liquid, the surface and interior of the orb ought to be as much disturbed as the surface and interior of the earth, where there are never wanting either whirlwinds or electrical phenomena, or volcanoes capable of producing the

movements observed. What is established is, that the isolated rose-coloured protuberances are only a sort of secondary accident of the atmospheric stratum which covers in the whole nucleus of the sun.'

At this most important point, Le Verrier's manuscript for the present terminates; but there is enough already given, we trust, to prove to our readers, that in the observations made generally by the astronomers of all nations on the 18th of July 1860, not only was there another record taken of the old phenomena seen during previous total eclipses of the sun, but there was so much advance in accuracy and power, as well of telescopic vision as philosophic research, that we do now really know more of the physical constitution of the great central luminary of our planetary system, than we did at any previous stage of the world's history.

#### OUR DUTY TOWARDS OUR CABMEN.

THERE is perhaps no class of persons, not excepting turnpike-men and tax-collectors, whose hand is set against everybody, and everybody's hand against them, so completely as the cab-drivers.

This universal hostility arises from several causes. There is no money one grudges so much as that which is spent on a short coach-journey at a high rate, and which, when finished, the needy traveller often reflects might have been performed on foot, but for laziness or procrastination. The actual distance travelled in a cab is rarely known with accuracy, and the fare is but too well convinced that if his driver does make an error in the reckoning, it will not be in the favour of the driven. Strong-minded females, and other determined and economical persons, therefore sit in their cabs with what they believe to be the exact sum required tightly grasped in their right hands, and their minds wrought up to an uncomfortable pitch of tension. In thus preparing themselves for the coming struggle, they pass miserable half-hours, quite unknown to that less numerous class who 'would rather give half a sovereign than have a row.' It is upon these poor people, and especially if they be females, that the cabman practises his most striking dramatic effects. It is in their astonished presence that he examines the proffered coin with well-acted curiosity and wonder as it lies in the palm of his hand, and inquires what it is, and what it is for, as though it were some handiwork of man discovered in the green sandstone. He is seldom passionate or vociferous—except in the very latest stage of the dialogue, when Hope itself has departed from that Pandora's box, his breast, to follow the rest of the virtues—but full of quiet determination, and a spirit of calm philosophical inquiry.

'Does the fare really think,' he demands, 'that he is going to drive his horse's tail off after *that* fashion (namely, at the tremendous rate of four miles and a half per hour), for such a remuneration as this? Has the fare ever been in a cab before, during her entire existence? Has she *never* been out of an omnibus, since she imagines that sixpence would defray the charge of a private conveyance, such as his own, fitted up with every luxury. He can wait, he thanks Heaven, for his time is his own, although valuable; and he *will* wait, ay, though it should be for eight-and-forty hours, sooner than be defrauded of his rights.'

The sanguine female, who generally endeavours to carry this gentleman by one tremendous assault, made up of oburgations, threats, and the most solemn asseverations that she will give no more, is defeated by this imperturbable demeanour, before which she pauses, breathless, like charging cavalry which find themselves in front of the bayonet. As they, too, rush round and round the solid square, in the vain hope of finding an entrance, so the infatuated fare now endeavours to discover a vulnerable place in the cabman's conscience, to which she may appeal with that

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considerable eloquence with which her sex is generally gifted. She shifts her ground a score of times, but the cabman never moves. Her arguments are drawn from heaven and earth, and even the lower regions, while her adversary concentrates his intellect entirely upon the acquisition of eighteen-pence. The contest is therefore not for one moment doubtful, unless some friendly sail, in the shape of an unusually civil gentleman who knows town, should wear down upon the privateer, and set the distressed merchant-woman free. There is no wonder that the female has a greater horror of the cab-driver than the male entertains. She seldom or never finds him a chivalrous enemy. He looks upon her and her children, and her hand-boxes, and the maid-servant that is within her gates, as a spoil and a prey; and when her husband travels with her, his charges sensibly decrease. There is a tendency to 'do' their fellow-creatures about persons connected with horses; there is an apparently irresistible temptation to cheat about those who keep a lodging-house; and the cab-driver who lets temporary lodgings and is 'horsey' as well, seems somehow to combine the attributes of both professions. Far be it from us to join in a vulgar cry against a class which toils late and early in all weathers, and sometimes seven days a week for doubtless not too abundant bread. Cabmen should always receive their dues, and courteously too—not with an averted face, and foot ready to spring away from their hated presence, and out of hearing of their stereotyped cry for more. Without doubt, too, some fares are stingy and mean enough. But the remedy lies nearer to the cabman's hand than it does to theirs. The police-office is always within an easy drive, and there are few persons who like to see their names in the papers in connection with a disputed sixpence. Nobody knows that better than the cabman himself. 'Well, maam, then let me drive you to the police-court;' or, 'Your name and address, then, if you please, maam, and I will take out a summons,' has extracted many an unwilling coin from perhaps not overburdened pockets. Fast young men who have plenty of money to spare, do not know, and perhaps would not care if they did know, how much extortion and evil-speaking they are indirectly responsible for, when they fling down their extra shillings at the railway station, and receive in return the information that they are 'something like gentlemen,' and 'of the right sort.' Poor Miss Hardlines, the governess, driving up with her scanty luggage for the 'parliamentary' train, is called 'a proper shabby one,' by the very same eulogists, for paying them their just dues. Of course, if the driver has driven fast by special request, or has even been unusually civil and obliging in his manner (a thing which needs encouragement in his class), there is reason for his being rewarded. Upon a wet or cold day, a man who can afford it, may be charitable to a cabman as well as to anybody else. But, in ordinary cases, and whenever the extra money is given as a part of the fare, munificence of this kind is not only not generosity, but an absolute meanness as respects those who, poorer than the donor, have yet occasion to make use of the same sort of conveyance. At the same time, we are quite ready to allow that those public-spirited individuals who go about purposely calculating fares to a nicety, and glorying in the discomfiture of their drivers before a magistrate who hardly knows which way to give his verdict, are despicable enough. Let the public and the cabmen have equal justice, and whenever there is an opening for Generosity, by all means let the cabmen have the benefit of it. Only let us males, and all persons who have money to spare, be considerate to the gentler sex and to the poor, and not overpay our cabmen, just because it doesn't signify to us, and 'saves a shindy.' The present writer is the more anxious to impress this upon his fellow-creatures, since, until lately, he was in the

habit of indulging in this evil practice himself—not that he was either particularly rich or generous, but because he preferred to take his ease. The following incident, however, which came under his notice the other day, has converted him from his foolish ways, and he trusts may convert others.

Mr Ernest Lambkin is a college-friend of ours, distinguished for meekness and determination; for generosity, and yet for an extreme disinclination to be 'done.' He is done, of course, in common with the rest of the human family, who happen to be neither attorneys nor Jews, but he is rarely done after the usual fashion, although, from the innocence of his appearance, he is always marked out by the designing for a prey. It was therefore instructive as well as amusing to have him for a companion in the Highlands during the tourist-season, as happened to us last summer. At a certain hotel at Loch Lomond, where bitter beer is sixpence the half-pint, and sherry six-and-sixpence per bottle, Mr Lambkin took occasion to remark upon the latter item before paying our bill.

'I should like to see the landlord, if you please,' observed he to the waiter, on the morning of our departure from this picturesque but expensive spot.

'The landlord! sir,' replied the domestic, in a tone almost as astonished as if we had demanded alligators' eggs, hard boiled, to put in our pockets for the coach journey. 'Mr Layeton Thick, sir, rarely appears in person, except in the case of'—

'Persons of distinction,' interposed Mr Lambkin softly. 'I understand exactly; but I must see him, nevertheless.'

Mr Layeton Thick put in such a very tardy appearance that the coach went without us, but a misfortune of that kind was by no means a thing to be weighed against the redress of an imposition, with Mr Lambkin.

'You sent a message requesting to see me—personally,' observed our magnificent host, as though his visitors were generally obliged to content themselves with his stereoscopic portrait.

'About an hour and a half ago, Mr Thick,' answered our friend with laborious politeness; 'yes. It was about this bill.'

'Bill!' returned the other, raising his eyebrows delicately; 'I trust there is nothing wrong, sir. It is quite without parallel that any complaint should be made in this house—quite.'

'Do you not consider that six-and-six per bottle for sherry is a little—just a little—extortionate?'

'I do assure you, gentlemen, that we do not gain one farthing—not a single farthing by the sale of it. What with the expense of transit!—'

Mr Ernest Lambkin had his note-book out in less than half a moment. 'Transit! From Glasgow to Balloch by train; from Balloch to the door by steamer. Are you deliberately prepared to adhere to your extraordinary statement, Mr Thick?'

'Most certainly, sir.'

'Good! Now I happen to be a wine-merchant.'

Mr Layeton Thick received this intelligence in a manner for which, if I had not seen it, I should never have given him credit. He blushed!

'And that being the case,' continued our friend, 'I will engage to put into your cellar a better wine than that I drank here last night for half the price; and any two gentlemen you choose to name shall be the judges of their respective merits. Now, consider, for *exactly half the price*.'

'We will say four-and-sixpence for this sherry,' returned Mr Layeton Thick, with a shrug of his shoulders.

'Very good,' returned our friend, settling the bill with the deduction thus suggested; 'and even for that price, Mr Layeton Thick, I think I could engage to purvey it to the inhabitants of Kamatchatka at a considerable profit.'

The cab-drivers themselves, with relation to whom

we commenced this paper, discovered in Mr Ernest Lambkin an unextortionable customer. We arrived at Glasgow by steamer, and were conveyed in a cab from the quay to the hotel, at which we designed to remain during our stay. The cabman demanded five-and-sixpence as his legitimate charge.

'That seems a good deal for the distance,' observed Mr Ernest Lambkin.

'It's the exact fare, however,' remarked our Jehu coolly.

'You are prepared to stand by that, are you?' inquired the other.

'Well, sir, then, since it's you and your friend,' this is in a tone of pathetic liberality, as though he had suddenly discovered that we were his brothers; 'we'll say five shillings.'

At these words, this present writer began to pity him, because we then knew for certain how the thing must end.

'My dear sir,' replied Mr Lambkin blandly, 'if it was fifty shillings instead of five, provided it was your proper charge, you should have it at once. Why should you let us off sixpence more than any other persons?'

'Well, then, dash it all,' cried the cabman, with the air of a man who was recklessly giving away his property for the benefit of his fellow-creatures, 'we'll say four shillings.'

'Have you got such a thing as a reference-ticket with you?' inquired the Undoable.

'Yes, sir—certainly, sir; it's as much as my place is worth to be without one. Robert Macglashan is the name, you see, and the address is Squash Lane.'

'Then drive us to Squash Lane,' remarked Mr Lambkin quietly, as he resettled himself in the cab, from which our luggage had not yet been taken off. 'We want to see all the objects of interest in Glasgow, and we may just as well begin with Squash Lane.'

Never shall we forget the expression of dismay and horror with which the astonished cabman received this order; he looked to his friend and confederate, whom he had brought with him on the box with an eye to portage, for sympathy and condolence, and not in vain.

So we started, two insides and two out, with luggage for six weeks, besides guns and fishing-rods, upon our journey towards the lane which was called Squash, and diligently, and for the space of more than an hour, did we pursue it. It struck us that the driver seemed to be purposely and maliciously taking a circuitous route—to be driving in what the logicians call a 'vicious circle'—because we came in sight of the same objects again and again; but this was no business of ours. As for Mr Ernest Lambkin, he was deep in the list of Glasgow cab-fares, from which doubtless everything might have been learned by a person who knew the localities, and could do without it, but nothing by a stranger like himself.

'My good fellow,' exclaimed the student suddenly, as he applied his hand to the check-string, 'are you aware that you are transgressing a by-law?'

'pon my word!' cried the cabman, piteously, and reining in his unimpatient steed, 'what *have* I been doing wrong now? I never drove a person like you before in all my life.'

'Not often, I am afraid,' returned his tormentor grimly. 'But, my dear sir, do you know you are putting yourself into a very false position by carrying that gentleman on your box. The little volume you have so kindly lent me expressly forbids that practice, and even exonerates me—if I choose—from paying you for that journey from the quay-side to the hotel, for which your last demand, I think, was four shillings.'

'Mercy me, sir! let us say half-a-crown, and be done wi't,' cried the cabman despairingly, and mopping his manly brow with his pocket-handkerchief.

'Nay, my good man,' returned the other, setting

himself comfortably in his seat, 'this is not a matter of bargaining and beating down, but one of fact and justice. Our only desire is to arrive at Squash Lane.'

The unhappy cabman and his confederate began here, as by a common impulse, to scratch their heads. 'If its your wull, sir,' observed the latter doggedly, 'the truth is there's nae sic place.'

'And the person to whom you gave the reference—Mr Robert Macglashan?'

'Well, my name is Bob Macglashan,' returned the cabman, 'and that's a fact.'

'Then I think you had better drive us back again,' observed Mr Ernest Lambkin.

When we once more arrived at our hotel after this prolonged excursion, we again demanded what was the proper fare from the quay.

'Eighteen-pence, if you please, gentlemen,' answered Mr Robert Macglashan humbly.

Our friend of course disbursed this cheerfully, but accompanied the payment with a few words of temperate advice.

'I hope, my man, that this long drive which you have taken us to-day, without reward, will yet not have been altogether for nothing. I trust it may be a lesson to you which you may remember in your future dealings with mild-looking gentlemen in spectacles, like myself, and especially with ladies and children. You have been in a false and disgraceful position for the last two hours, of which I was glad to see you were yourself thoroughly ashamed. It would have been better, you must confess, to have received the eighteen-pence at first, like an honest man. Foolish persons have doubtless sometimes given you money to "remember" them by, as the phrase is; but I have given you, I hope, something better, although it has cost me more.'

Though it may provoke the smile of the incredulous, the truth shall nevertheless be told: it is a fact that this Layton Thick of the cab-stand, callous as his class is supposed to be—deaf to the most 'awakening' of sermons, and impervious to the most insinuating of tracts—was really struck by the straightforward manliness of Mr Ernest Lambkin's address, and promising not to forget it, drove off with a civil touch of his hat, as though we had overpaid him handsomely.

## THE MONTH:

### SCIENCE AND ARTS.

Or all the improvements by which London has of late been beautified or benefited, the one now in progress is by no means the least important. We refer to the sub-way, 7 feet 6 inches high, and 12 feet wide, now constructing along the new street leading from Covent Garden to Cranbourne Street. Long talked about, a sub-way is actually commenced at last. It will be large enough to contain all the gas and water pipes required on the route; and when these are once in place, the service to the several houses will be laid on through small lateral passages, and all this can be done without disturbing the surface of the roadway. Those who know what happens in London when a leading thoroughfare is blocked because No. 17 is having something done to its gas, or No. 159 is laying on a larger supply of water, or some company is laying down bigger mains at the rate of a furlong a day, will best be able to appreciate the manifold advantage of a street where the surface will never need to be disturbed except for repaving. When repairs are needed, or alterations are required, the workmen will enter the sub-way by trap-doors, and work there while the traffic goes on as usual over their heads. Of



course the promoters of telegraphs will avail themselves of so convenient a receptacle for their wires: and, indeed, it is not easy to foretell the advantages that may hereafter accrue from such a mode of multiplying the communications of a great city. The Metropolitan Board of Works, to whom the making of this new sub-way is due, make known in their last annual report that the northern high-level sewer, a length of eight miles including branches, is approaching completion. It has a double storm-outlet channel; a double overflow chamber, 138 feet long, and 40 feet wide; and a sewer outfall, 9 feet high, and the same in width. These measurements convey a notion of the magnitude of the excavations, and the enormous quantity of brickwork required. In its course, it passes under the Great Northern and North London railways. The high-level sewer on the south side of the Thames is to be nine miles long, and for some distance 10 feet 6 inches high and wide. During the excavations at Deptford in July last, water burst in, and continued to flow at the rate of 6000 gallons a minute, so that a 70 horse-power steam-engine had to be erected to pump it out, and enable the men to work. The cutting for the outfall is begun in Plumstead marshes, within range, as it appeared, of the artillery; for one day the balls fell but a few feet from the diggers. To prevent accident, the authorities at Woolwich have been requested to cease firing for awhile, or take a shorter range. Those who take interest in the sewage question will regret to learn, that the Board have advertised for persons willing to undertake the task of utilising the sewage—that is, intercepting the foul streams at their outfall, and converting them into a profitable fertiliser—but in vain.

Of improvements of another kind, there are now to be seen in Wellington Street and in Broad Street, St Giles's, new buildings of coloured brick, which have a very pleasing and picturesque appearance. We are glad to notice that the taste for this kind of street-architecture is spreading; and when we remember what beautiful effects are produced with coloured brick by builders in Lombardy, we can but desire to see more attention paid to such an excellent material in this country. Another means of embellishment has been suggested—namely, the offer of prizes for the best flowers, blossoming shrubs and thorns, grown in our squares; an acceptable idea enough, but how is successful flowering to go on in the smoky atmosphere of London? The restoration of the interior of St Paul's progresses satisfactorily, and henceforth, besides the adornments, visitors will be gratified by the fine perspective view opened by removal of the organ screen.

The present age may be described as one of statues as well as of testimonials. Bolton is about to erect a statue to Crompton, the ingenious inventor, at its own cost: Spilsby wishes to have a statue to commemorate Sir John Franklin, because the town was his birthplace, but calls for help from other quarters: Taunton has set up a statue in honour of Admiral Blake—a worthy of whom Somersetshire may well be proud. And while art is advancing, we have the satisfaction of knowing, on the authority of Poor-law Reports, that pauperism is decreasing.

The Horological Institute, whose head-quarters are within the classic precincts of St John's Gate, not content with periodical meetings and a periodical publication, devoted to the essential improvement of horology, have established a class for instruction in geometry and drawing—subjects of first importance to clockmakers.—The Society of Antiquaries have commenced the publication of a new series of their *Proceedings*, for distribution among their Fellows with greater frequency than hitherto. Papers read at the meetings will thus appear promptly in print, and excite, as is hoped, an active spirit of useful inter-communication, and impart animation to the Society's

endeavours. Seeing that the king of Denmark has presented a paper to the Society of Northern Antiquaries at Copenhagen, written by himself, on the antiquities of Denmark—that a countess gets a gold medal for the best photograph—that a duke has published, at his own cost, magnificent illustrated volumes of the Roman and other antiquities in Northumberland, it behoves 'ordinary Fellows' to be on the alert indeed.—Two facts are worth mentioning which belong to the history of language: the study of English is now compulsory in the public schools of Norway; and the Emperor of Russia has withdrawn the prohibition, which forbade the youth of Poland to receive college instruction in their own tongue.

The author of *Man and his Migrations* will have to record a new migration in his next edition, for the Tatars are still leaving the Crimea by thousands, to take up their abode in Turkey. For some reason, perhaps because they have been made to feel that they were too lukewarm in the great campaign, they prefer Mussulman rule to Muscovite.—The Persian government are considering a project for a railway from Trebizond to Teflis and Teheran.—England cannot find time to entertain the decimal system of weights and measures; among continental nations which have adopted it, Portugal must now be included, the decimal system having lately there become the law of the land.—Holland is thinking over 'new maritime routes' from Amsterdam and Rotterdam to the North Sea.—The Victorians have dredged the bar of the Yarra-Yarra so effectually, that vessels drawing 14 feet water can now get up to Melbourne. We learn by the last news from the colony, that a new expedition was about to start for further exploration of the interior, with Dr Becker as naturalist, Wills of the observatory as astronomer, and camels as beasts of burden. Another fact, interesting to 'intending emigrants,' is the disproportion between the sexes; for, excluding the females under twenty years of age, there are 217 men to every 100 women throughout the colony.—The census of the United States of America has again been taken, and we are soon to have a summary of the results; meanwhile, it appears that the country has 30,000 miles of railway, 50,000 of telegraph, and 25,000 acres of vines under cultivation.—A project is talked of for preventing the floods of the Mississippi, by doing for that great river what nature does for the St Lawrence. The Canadian river, as is well known, never overflows, because the great lakes through which it passes absorb all the superabundant waters, and maintain it always at the same level. Hence, it is thought, that by forming large reservoirs on the upper course of the Mississippi, where the country is favourable, a similar effect will be produced. It is a grand scheme, not beyond the power of modern enterprise; and as for the cost, the saving by prevention of floods for three years only would repay it. A project of the same kind is under discussion in France, where some of the river-valleys are liable to most disastrous inundations, and the only promising remedy appears to be that of compensation reservoirs. Another scheme is to connect the English Channel with the Mediterranean, by a system of canals from the Seine to the Yonne, the Saone and Rhone.—Russia is thinking of joining the Caspian with the Black Sea, by a canal from the Don to the Volga, but the idea is not a new one. Peter the Great ordered the work to be carried on during his reign, though nothing was done; and he was but a follower of Sultan Selim II., who actually commenced a canal in 1569, and employed 20,000 prisoners on it for two years, after which he abandoned the work.

Some alarmists have raised a question as to the duration of the supply of that very useful oil, paraffine, because it is calculated that the Bathgate coal, from which it is distilled, will be exhausted in eight years from the present time. There is, however, no occasion for uneasiness, for any kind of

cannel-coal will answer the purpose, and this is met with in most of our coal-fields; large deposits, moreover, have been recently discovered at Pictou, Nova Scotia, and any kind of petroleum will yield paraffine—Rangoon tar, Trinidad pitch, and the asphalt of Cuba.

The new metal aluminum is taken more and more into use: a firm at Newcastle-on-Tyne have begun the manufacture of it on a large scale, in the pure state, and as bronze. Unexpected results have been obtained in experimenting with it as an alloy: 20 parts of aluminum with 80 of copper produce a metal which, to the eye, has all the appearance of gold. What a resource is hereby offered to the arts, useful and ornamental! Alter the proportions, and mix 10 of aluminum with 90 of copper, and the result is a metal singularly hard, and of excellent application for pivots and bearings in machinery. We hear, too, of other ways in which aluminum is likely to be available in commerce and domestic life: in one respect, seeing that it does not tarnish or become discoloured by exposure, it has the advantage over silver.

A remarkable experiment was tried at Schaffhausen, at the beginning of September, being nothing less than an illumination of the falls of the Rhine by means of electric lamps. The effect is described as wonderful, for the rushing roaring stream in its whole breadth appeared as if changed into liquid fire.—Mr Wilson of Philadelphia has invented an electric gas-lighter, by which a thousand burners or more can be lighted at once, and in different parts of a large city at the same time. Besides the requisite wires, the apparatus comprises a small voltaic battery, and one of Ritchie's improved induction coils. The battery is maintained in working-order at a cost of a shilling per month. Mr Wilson having had his apparatus in successful operation for more than a year, and having produced a spark  $2\frac{1}{2}$  inches long through 600 miles of wire, has now brought it before the Franklin Institute of Philadelphia, as an invention which may be economically used in lighting the street-lamps and public buildings of towns. An obvious advantage arising from its use appears at first sight; namely, that the gas need not be lighted until the very moment that it is wanted.—It appears that the sewing-machine is employed in the United States on a scale far beyond anything as yet attempted in England: it has, we are told, modified thirty-seven different branches of manufactures: £1,500,000 is set down as the annual saving in Massachusetts in the manufacture of boots and shoes, by the mere substitution of the sewing-machine for hand-labour. An equal sum is said to be saved in a year in New York, by using the machine to sew the clothing of men and boys; £92,000 on hats and caps, and £170,000 on shirt-fronts. While publishing these totals, we think it well to inquire whether it is really pounds sterling or dollars that is meant.—Another very profitable invention is a machine for cutting hard-wood veneers, by a knife, which obviates all the waste consequent on the use of a saw. By hard-wood is meant rosewood, satinwood, zebra, and the like; and a correspondent, writing from New York, says: 'Our principal pianoforte makers and others are using and will use none but knife-cut veneers. Sawed veneers are behind the age; and a log which would have yielded but five hundred feet, now turns out a thousand, in half the time, and at little expense.'

Scientific readers are aware that the undulatory theory of light, though pretty generally accepted, is nevertheless on its trial, and liable to modification, as new facts are discovered. The question is one of first-rate importance, in a scientific point of view, and rarely admits of popular illustration; but in a paper read before the Manchester Philosophical Society by Mr J. Smith, we find an account of a few interesting experiments, which may be repeated without

the use of recondite appliances, and which appeal in a striking manner to the eye. Mr Smith holds that the vibrations of the luminous ether are not such as science teaches, and that we may dispense with the notion that rays are of different refrangibility. He assumes that white light is the motion of an ether, while blackness is the state of no motion, and shews that certain colours—blue, red, or yellow—are producible by the alternate action of light and shadow—taking shadow to signify blackness. Cause a parallelogram of white card-board to revolve over a black surface with the same rapidity as the vibrations of light, and the colour will appear to be blue or purple, according to circumstances. A disk painted with black concentric rings, on a white ground, becomes completely coloured when swiftly whirled; the black and white disappear, and on a bright cloudy day the disk shews a light yellowish green, two different shades of purple, and a pink. Vary the shape of the disks, and the proportions of white and black, and all the colours of the rainbow may be obtained. Similar effects may be produced in shadows cast on a wall, or by rotating a black disk, in which openings are cut of a definite form, in front of a white cloud or screen.

From these and other experiments, Mr Smith concludes that they 'prove the homogeneity of the ether—the undulatory hypothesis, but not the undulatory theory—and that they help to explain many of the phenomena of what is called the polarisation of light, and give a new explanation to prismatic refraction.'

#### THE MINSTER-BELL.

On a bleak hill the Minster stands,  
Black with Time's breath; the ivy there,  
Still struggling up its crumbling stair,  
Spreads wide its thousand-fingered hands.

Slow pacing through the lonely dell,  
When softly twinkling stars appear,  
How solemnly, how sweet, and clear,  
Chimes from its tower the vesper-bell!

To meditation deep, profound,  
Its voice the thoughtful soul aye moves;  
And for dead hopes and blighted loves,  
Thousands have in it solace found.

A preacher to the hamlets small,  
And vale-embosomed villages,  
That bell-voice booms across the leas,  
Bearing a sermon unto all.

Thousands who in old churchyards rest,  
Have paced this solitary dell,  
And felt the sermon of the bell,  
Wake deepest echoes in their breast.

And long up in its hoary home,  
Shall that bell mark Time's rapid flight—  
At morn, at eve, and solemn night,  
Its message o'er the valleys boom.

For me, wherever called to dwell,  
Whether I sorrow or rejoice,  
I'll ne'er forget the warning voice  
Of the deep-sounding Minster-Bell.

J. E.

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